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COUNTRY PROGRAMME FOR

CHILE

UNDP assistance requested by the Government of Chile
for the period 1977-1981

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I. INTRODUCTION

A. General

1. This document was prepared by the Government of Chile through the National Planning Office (ODEPLAN) and the National Commission for Scientific and Technological Research (CONICYT) working together with a view to the channelling of the technical co-operation requested from UNDP towards the achievement of the country's scientific, technological, economic and social development objectives, and was reviewed with UNDP by the Ministry of Foreign Affairs and CONICYT acting jointly. At every stage in the formulation of the document, the Office of the UNDP Resident Representative offered continuous co-operation and advice.

2. Emphasis should be placed on the importance to Chile of the technical co-operation it has received from UNDP within the total of resources channelled to the country from various sources of assistance, both multilateral and bilateral. In the period 1965-1975, the country received a total of approximately $US 170 million from various sources of assistance. Of this total, approximately $US 65 million was from UNDP, making possible the transfer of scientific and technical knowledge from abroad in the form of advisory services of international experts, training and advanced training abroad of Chilean scientists and professionals and the provision of technologically advanced equipment and instruments to universities, State research institutions and public enterprises participating in programmes and projects which have considereble impact on priority sectors for national development.

3. Thus it may be seen that the technical co-operation offered by UNDP has been a highly effective element in the national development process, both quantitatively and qualitatively. The available figures indicate that approximately $US 6.5 million have been received annually to help finance Chile's development. Moreover, the fact that the implementation and execution of projects involving international technical co-operation are the responsibility of the Government makes the contribution of such international assistance all the greater. The magnitude of the efforts being made is a further indication of the importance of UNDP assistance and of outside technical assistance in general.

Judicious programming of resources available for the forthcoming five-year period 1977-1981 is, therefore, essential in order to ensure optimum utilization of resources by concentrating them in areas which have definite priority for the country's development.

B. Position paper

1. The current UNDP technical co-operation programming exercise began with the preparation by UNDP of the so-called "Position Paper", which the Office of the Resident Representative submitted to the CONICYT officials for their consideration.

As stated in its introduction, the paper was to be a contribution to the programming process and set forth an outsider's view, namely that of UNDP and the

specialized agencies, regarding factors which they felt should, in keeping with the new international economic order and the International Development Strategy, be considered in preparing the next technical co-operation country programme.

According to UNDP, the paper was not an attempt to present an exhaustive diagnosis of the economic and social situation of the country but was limited to highlighting a number of the major "critical areas" and "bottle-necks" which, in UNDP's view, were creating obstacles to national development and made it necessary to obtain technical assistance in order to overcome and/or resolve existing problems and difficulties.

2. CONICYT made the following observations regarding the above-mentioned "Position Paper":

(a) At the time it was prepared (June 1975), three documents which are of basic importance as a frame of reference in fixing national development targets and which have been approved only in the past few months were not yet available. They are:

"Chile's National Objective" (promulgated by the President of the Republic);

"The First National Indicative Development Plan" (prepared by ODEPLAN; the original version of this Plan was, however, brought to attention of UNDP for its information in connexion with the programming exercise);

The "National Plan for Scientific and Technical Development 1976-1980" (prepared by CONICYT and approved by Decree No. 259 of 15 March 1976).

(b) Consequently, it was not possible for the UNDP paper to reflect the current priorities set by the Supreme Government, priorities which must be considered in identifying areas in which outside assistance might be concentrated. The paper recognized that difficulties were being experienced in implementing the Programme, owing basically to the general effects of the world economic crisis. However, even greater emphasis should be placed on the fact that the current programme has had to be reoriented twice as a result of profound changes in the country's political, economic and social policies over the past five years.

(c) In general, a satisfactory selection has been made in the paper of the most important projects carried out under the current Programme which have had a positive impact both quantitatively and qualitatively on the various sectors, and this aspect will be dealt with in greater depth below.

(d) As regards the analysis of the country's economic and social situation, the UNDP paper, drawing on statistics from the Central Bank and ODEPLAN, underscored the effects on the country's general situation produced by the slow pace of development in the years 1970-1973 and the rise in the price of fuel, fertilizers and equipment which was coupled with a sudden decline in copper prices.

As noted above, the national development objectives and strategy referred to in the paper antedated the new factors and documents which define the current position of the Government and which will be considered specifically below in the section on "Chile's Development Prospects".

C. Methodology and criteria used in preparing the Programme

1. The Programme was prepared in two principal stages which can be described as, firstly, identification of requirements at the national level and, secondly, the selection of priorities and the appropriate allocation of resources.

2. In defining requirements at the national level, an effort was made to ensure that proposed actions would generally combine the following characteristics:

(a) They would have the greatest possible impact on national development;

(b) They would strengthen national efforts to develop priority or key sectors;

(c) They would concentrate UNDP involvement, to the extent possible, on a limited number of large-scale activities.

In other words, there is a need to remedy the short-comings of the first country programme, in which efforts were to some extent dissipated.

3. Specifically, the proposed actions will meet the following requirements:

(a) They will form a "package" of projects which complement each other to the greatest extent possible.

(b) They will have a catalytic effect with regard to the concentration of national efforts by galvanizing the will of national institutions and authorities to tackle specific problems or "bottlenecks" which are at present or might in future be obstacles to development.

(c) They will have a catalytic effect on:

Other technical co-operation programmes, either by attracting funds from other sources to strengthen UNDP project activities or by bringing about appropriate joint efforts with complementary non-UNDP projects;

Financial co-operation programmes, in that they will promote the flow of financial resources to be channeled into investment opportunities resulting from the project's activities or its effects.

(d) They will be a stimulus to innovation, so that:

They will compensate effectively for deficiencies in the country's capacity or experience which would otherwise hamper it in dealing with the problems that the project aims to solve;

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Their implementation will open new prospects for development;

They will result in the strengthening of activities in Chile which would not have taken place had the project not been carried out.

(e) They will have sufficient national credibility and acceptability to ensure that the request for their implementation actually reflects the will and sense of responsibility of the national authorities and institutions which must guarantee the existence and continuation of such conditions as are necessary for the full success of the project and which are commonly referred to as "counterpart obligations".

(f) They will have the greatest possible long-term relevance. In other words, the content of the project must be dictated by a genuine need which will still have to be met at the time the project is completed.

4. In the project selection process, an inventory of existing international technical co-operation projects was first prepared with projects classified by sector and by area - problems and institutions - followed by an analysis of such projects.

As regards existing projects, other than UNDP projects, the basic aim of the exercise was to determine:

Whether the projects were adequate to meet the above-mentioned requirements for the identification of technical co-operation needs;

In the event that the results were positive whether those results were enhanced by UNDP assistance.

The aim in analysing existing UNDP projects was to determine:

The amount of difficulty encountered in their execution;

The extent to which they met the requirements for identifying technical co-operation projects;

The extent to which the objectives fixed in each project were being attained;

Justification for extending them beyond 31 December 1976.

5. Once the existing projects involving external co-operation had been analysed, meetings were held with representatives of various institutions or the co-ordinators of sectoral offices for the purpose of identifying possible projects in accordance with previously established guidelines. The results of these meetings were evaluated by CONICYT with a view to having the various agencies submit the relevant preliminary drafts. The drafts were subsequently evaluated in order to detect any duplication of effort and/or ensure co-ordination among the various agencies in the

pursuit of common objectives. To that end, meetings were held to ensure interagency co-ordination and confirm the sponsorship and commitment of counterpart contributions.

6. The above-mentioned process of identifying and formulating needs made it possible to draw up a preliminary draft country programme. When that had been completed, it was possible to go on to the second main stage in the formulation of the country programme, that of selecting priorities and assigning resources. ODEPLAN participated in this phase, to determine whether the programme was in conformity with economic and social development priorities, while CONICYT studied the draft to ensure that it was compatible with national scientific and technological development priorities. The decision on the programme was taken by a joint CONICYT-ODEPLAN committee.

7. The priorities in accordance with which Chile's country programme was drawn up were determined in the light of the following criteria:

(a) Importance

Cost-benefit ratio: This criterion is applied with a view to measuring the impact of the project, taking into account the following factors:

Impact of the project on the creation of conditions favourable to development, on the strengthening of such conditions where they already exist, and on the increase in rates of development;

Multiplier effects of the project in the sector in which it is being carried out or in relation to other sectors on which it has indirect effects;

Future secondary effects of a project in terms of the creation of conditions for carrying out new projects which will make possible the solution of problems by more sophisticated means, or in terms of the creation of conditions which generate investment projects.

Socio-economic situation of the sector in which the project is to be carried out: This criterion measures the importance or priority decided upon in economic plans in terms of the socio-economic development of the various sectors which form part of the country's socio-economic activity.

Situation in the sectoral branch in which the project is being carried out: This criterion measures the importance or priority attributed within each sector to each of the various subsectors or specialized branches which comprise it.

Obviously, in assessing these factors, both socio-economic and scientific and technological effects are taken into consideration.

(b) Urgency

Impossibility of deferring solution of problems: An assessment of the maximum time-limit within which the country's problems must be solved, having regard to existing socio-economic and scientific and technological realities.

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Duration: This criterion measures the rapidity with which the project creates favourable development conditions.

(c) Practical criteria

Alternative resources: This criterion determines whether the problems for which a solution was sought through UNDP technical co-operation specifically required UNDP co-operation or whether the same results could have been obtained using only national resources or by having recourse to other sources of co-operation.

Project density: In accordance with this criterion, it was determined whether projects similar to those included in the programme were already in existence, in order to avoid excessive concentration of efforts in solving the same problem or in satisfying the same need and also to avoid duplication or conflicts with other projects which were already in operation or were about to be carried out.

Intrinsic consistency: In accordance with this criterion, the following factors were considered:

Conformity of available means with objectives of each project;

Existence of adequate counterpart capacity;

A harmonious and logical relationship between the various parts and phases of the project;

Degree of accuracy with which each of the above-mentioned factors were considered.

8. The results achieved throughout the planning process, including the identification of needs, the selection of priority areas and the allocation of resources, enabled a Joint ODEPLAN-CONICYT Committee to draw up the rough draft of the UNDP country programme for Technical Co-operation (1977-1981).

At the same time, discussions were held with representatives of the Directorate of the Budget in the Ministry of Finance in order to ensure that the financial counterpart contributions required for the timely and regular implementation of the projects included in the programme would be available.

Finally, the various international organizations were consulted in order to obtain their comments on how they could support the programme's implementation. When those comments had been received, the final version of the programme was drawn up, incorporating the necessary adjustments and amendments.

9. For the purposes of programming the UNDP resources for Chile's second country programme, and as is indicated by the methodology applied, ODEPLAN and CONICYT were made jointly responsible for determining how this international aid was to be channelled.

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CONICYT is responsible for administering and co-ordinating the UNDP programme, including the reception, examination and evaluation of specific projects, and also negotiates it, together with the Ministry of Foreign Affairs, with the UNDP authorities.

Also in accordance with these principles, the ongoing evaluation of projects and of the Programme in general will be affected through the exercise of the functions of CONICYT, either unilaterally or in accordance with the procedure of tripartite project evaluation carried out jointly with UNDP and a representative of the international organization which is co-operating in the project. In addition, for each project there will be a Committee for the Planning and Supervision of Activities, on which CONICYT will have a representative.

D. Analysis of UNDP co-operation for the period, 1972-1976

1. General background

Chile's first Country Programme of Technical Co-operation, covering the five-year period 1972-1976, had an Indicative Planning Figure of $US 20 million. Of this amount a total of $8,600,000, or 40 per cent of the IPF consisted of earlier allocations for 34 projects which were already being executed as of 1 January 1972. If one makes an over-all analysis of the technical co-operation provided by UNDP to Chile during the ten-year period 1965-1975, it can be seen that such co-operation was concentrated primarily on the transfer of technology and secondly on locating or prospecting for natural resources.

Specific examination of the period covered by the first country programme (1972-1976) shows clearly that UNDP was continuing the earlier trend. The structure of the first country programme shows that, in accordance with the trend of the preceding five years, approximately 60 per cent of the resources made available were similarly allocated to the transfer of technology and more than 20 per cent to prospecting for natural resources.

2. Execution of the programme

The situation prevailing at the time of Chile's first country programme made the programme particularly difficult to execute. The world economic crisis, the industrial recession in the developed countries and other factors created major national problems. To this situation was added the financial crisis in UNDP itself and the serious problems created by internal and external economic conditions, which plunged the country into an extremely critical economic and social situation. Chile had to cope with the following difficulties:

A rate of inflation virtually without precedent in the world;

A sudden drop in the price of copper, which constitutes more than 70 per cent of Chile's exports;

The quadrupling of the price of petroleum, which the country has to import to cover approximately 70 per cent of its requirements;

The readjustment of prices in order to eliminate the existing serious distortions;

The reordering of the management of the economy and, finally, the need to introduce stringent measures to restrict public spending, in order to eliminate the budget deficit.

The first country programme was approved at the beginning of the current decade, when a development approach was being applied which aimed at bringing about fundamental changes in the country's economic and social structure. Although the national programming of technical co-operation is restricted to the technical aspects of the national development effort, in the process of execution, particularly at the project level, it sometimes reflects the particular stamp which the Government wishes to impress on the country's economic and social order.

As a result, in the first year of the country programme (1972) major changes were made in a number of projects which were already in progress, in order to readjust them to the requirements of an approach to development which was fundamentally different from that taken at the time when those projects had been conceived.

Before the end of the second year of its operations, as a result of the radical change of direction which the new Government had given to the national development process, the country programme had again to be partially revised and the activities under certain projects reoriented.

This situation obviously affected the execution of the programme, in terms of both volume and schedule. In addition, the capacity of the United Nations system to respond promptly and effectively to the consultancy needs of the Chilean Programme was weakened and reduced by difficulties in recruiting experts, shortages of equipment and delays in its delivery and the inadequacy of facilities for training national personnel in sectors which were of major economic importance or which involved sophisticated technology. These difficulties were further increased in 1976 by the UNDP liquidity crisis.

In spite of these problems, in the execution of the Chile country programme for 1972 $US 4,281,000 in inputs from UNDP were used, thus exceeding the IPF annual average of $US 4 million. In 1973 and 1974, the costs of implementing the programme were on the order of $US 3,390,000 and $US 2,953,000 respectively and, in 1975, approximately $US 4,463,000. It is envisaged that $US 4 million will be used in 1976, making a total of $US 19,087,000 for the five-year period, or 95.4 per cent of the IPF, representing one of the highest expenditure rates for countries whose IPFs are the same as or similar to Chile's.

However, an even more significant factor than the quantitative dimensions that the programme has taken on in our country is the quality of the co-operation provided by UNDP and its repercussions on Chile's short- and long-term development. A number of projects can be mentioned as concrete examples of this quality and impact.

3. Main achievements of certain projects

(a) The establishment and consolidation of the National Forestry Service with the support of the project entitled "Strengthening of the National Forestry Programme" provided the country with a modern service for the management of its forestry resources.

(b) The "Milk Technology Institute" project contributed to the technological improvement of the milk industry by training more than 800 university graduates and also more than 400 of the industry's professional and technical employees.

(c) The "Quality Control and Improvement of Fish Products" project, carried out in co-operation with the Fishery Development Institute, developed a vacuum-packing process for frozen prawns and shrimps which has to date been adopted by two industries, representing a processing capacity of more than $US 300,000 per month and which immediately eliminated the situation whereby about 30 per cent of Chile's fishery exports were being rejected by importers because of unsatisfactory quality.

(d) The "Technological Applications of Nuclear Energy" project made it possible to bring into operation the 5MW reactor at the La Reina Nuclear Energy Centre and to normalize the production of radioisotopes.

(e) The "National Telecommunication Training Centre" project has trained an average of 900 technicians per year for the National Telecommunications Enterprise, the Chilean Telephone Company and the Postal and Telegraph Service.

(f) The "Centre for Studies, Measurement, Evaluation and Control" project led to an agreement with ADC on industrial inspection in the Andean subregion. The Centre provides 75 per cent of its own financing and offers technical services to highly specialized firms.

(g) The "Mineral and Metallurgical Research Centre" project set up a modern institution equipped with laboratories and pilot plant which carries out specific research on technical problems of copper-mining firms. At the present time, the Centre is carrying out approximately 50 applied research projects.

(h) The "Development of Geothermal Resources" project has made it possible to drill two productive wells with a total capacity of 16MW in the El Tatio area and to carry out a feasibility study for the establishment of a geothermal-electric power plant.

(i) The "Water Resources in the North of Chile" project has so far located an additional volume of water of acceptable quality of 3 cubic metres per second, thus doubling the quantity which was available in the region at the beginning of the project.

(j) On the basis of the results of the "Petroleum Prospecting on the Continental Shelf" project and its feasibility study for off-shore petroleum

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exploration, the Government is beginning its off-shore drilling programme in the Strait of Magellan in September 1976.

Two projects were fundamentally reformulated in 1974 and 1975 and are now completely normalized. The "Irrigation and Conservation of the Bio-Bio Soils" project has made a significant contribution to agriculture in the area, including as it did an inventory of renewable natural resources with a view to their development, water planning and engineering design, the selection of efficient irrigation methods, the provision of technical assistance to farmers and the preparation of economic and financial studies. The other project, "Agrarian Reform and Rural Development", carried out jointly with ICIRA, has trained 19,981 peasants, beneficiaries of the agrarian reform, from 732 settlements, and also 346 agriculture professionals.

All in all, the results of the first Chilean country programme were reasonably satisfactory. Most of the specific aims of individual projects were achieved and this contributed effectively to improving the sectors to which the projects related, supplementing national efforts in the same areas.

E. Future policy in relation to UNDP

1. As was indicated in connexion with the analysis of what UNDP co-operation has meant over the last decade, UNDP is regarded as constituting the source of international co-operation which is most in keeping with the principle of achieving a real transfer of scientific and technological capacity. Likewise, UNDP is the body which has shown the greatest understanding of the need to adapt co-operation to the real needs of the recipient country.

2. In the light of these considerations, the future policy of our country with regard to UNDP can be summed up as follows:

To maintain interest in the continuous strengthening and expansion of the country programme;

To channel through the programme those technical co-operation requirements which, given their impact on development, their complexity and their urgency, call for certain guarantees, such as the following: that sufficient resources will be allocated; that the only criterion involved will be the importance for the recipient country of seeing such co-operation materialize; that the projects will begin within fairly predictable time-limits; that the country's store of scientific and technological knowledge will be substantially increased;

To continue the ongoing dialogue with the UNDP Resident Representative, which has made fruitful co-operation possible at the operational level, thus facilitating the achievement of the desired results;

To concentrate resources on the solution of major problem areas which have priority for national development.

3. In support of this policy towards UNDP, we reiterate our intention of continuing to apply gradually but resolutely, the recently adopted "new dimensions" (General Assembly resolution 3405 (XXX)) which were formulated in order to achieve what has been declared to be the basic purpose of technical co-operation, namely the promotion of self-reliance in developing countries by building up their indigenous resources and productive capability. In terms of the projects of the next country programme, this involves:

Placing emphasis on the product, i.e. on the results of technical co-operation rather than contributions or inputs;

Providing, where appropriate, equipment and material resources rather than expert services; allowing for greater flexibility with regard to local cost financing and the requirements of counterpart personnel;

Diversifying the sources of inputs used in order to be able to mobilize promptly and efficiently the available human and material resources, particularly those from developing countries;

Procuring equipment and services on a preferential basis from local sources or from other developing countries;

Taking responsibility for executing UNDP-assisted projects;

Providing technical co-operation at any of the stages and levels of the development process, including assistance for project planning, pre-feasibility and feasibility studies, detailed engineering design, and, where appropriate, construction and initial operations and management;

Promoting co-ordination with investment sources in order to finance the technical co-operation components of projects and programmes.

II. DURATION AND AVAILABLE RESOURCES

The second UNDP country programme for technical co-operation for Chile will cover a five-year period beginning on 1 January 1977.

Consequently, it will cover approximately the same period as the economic and social development plans and the scientific and technological development plan recently approved by the Supreme Government, thus constituting an effective means of helping to attain the developmental objectives set forth in those plans, as will be demonstrated below.

The volume of resources for the next programme (1977-1981) will be slightly higher than that for the 1972-1976 programme.

The estimated resources for the next country programme are as follows:

Indicative Planning Figure	$US 20,000,000
Balance carried over from first country programme	913,000
Reserve for over-programming	(1,500,000)
TOTAL	$US 20,913,000

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III. CHILE'S DEVELOPMENT PROSPECTS

A. Brief description of the country's state of development

1. Background

In recent decades economic development in Chile has been slow, as is shown by a growth rate of approximately 3 per cent in the period 1966-1974.

The per capita growth rate for the same period was approximately 1.1 per cent.

In the period 1970-1973 the situation deteriorated and the average growth rate of the gross domestic product was only 1.3 per cent, including a growth of 3.6 per cent in 1973.

Under the present Government, the growth rate was 4.3 per cent in 1974 and -14.7 per cent in 1975. 1/ The latter figure was basically attributable to the fact that, because of the world crisis and the internal situation, it was necessary to make an extraordinary adjustment in the balance of payments, and this was partly reflected in a lower level of economic activity.

Gross domestic investment in fixed capital, practically all of which fell into one of two categories, namely construction and works (60 per cent) and machinery and equipment (40 per cent), also dropped. This drop is reflected in the coefficient for gross domestic investment in fixed capital (expressed as a percentage of gross domestic product) and in the growth rate for such investment in the following periods: 2/

	1960-1964	1965-1970	1971-1973
Gross domestic investment coefficient	15.8%	14.8%	12.7%
Growth rate for gross domestic investment	6.6%	3.7%	-4.3%

In the 1960s unemployment, the figures for which include the previously employed and newcomers to the work force who are unable to find employment, averaged 6.5 per cent. It rose to 9.2 per cent in 1974 and 14.5 per cent in 1975. 3/ The reasons for the latter figures lie in the failure to create new sources of employment in the period 1970 to 1973 (owing to insufficient investment) and excessive recruitment of labour by the public sector and in the area of social property, causing hidden unemployment, the effects of which began to show clearly

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1/ Source: ODEPLAN, Cuentas Nacionales.

2/ Source: ODEPLAN, Cuentas Nacionales (in 1965 money).

3/ Op. cit.

as of 1974. In addition, economic activity fell, particularly in the construction and industrial sectors.

2. Traditional problems and current difficulties

In recent decades the country has suffered from various chronic or traditional ills, such as: widely varying economic and social policies; a disproportionately large and inefficient State administration; a large fiscal deficit, which has increased enormously over the last few years in particular; a low rate of total investment; over-dependence on industrial inputs and other products, particularly agricultural products, from abroad. This made the country vulnerable to fluctuations in world markets, particularly in view of the fact that a single product, namely copper, represents more than 70 per cent of the total value of exports. Finally, the inadequacy, in both absolute and relative terms, of resources allocated for scientific and technological development means that the country has remained under-developed and has become a very large importer of technology in order to obtain by transfer the technological knowledge which it needs but has been unable to develop internally.

These chronic or traditional difficulties have recently been aggravated by a substantial increase in the price of fuel and other imports such as fertilizers, certain types of equipment and petrochemical products, in addition to the sudden and substantial drop in copper prices which began in the second quarter of 1974.

B. Development plan

1. Since 1974, the country has been drawing up a development plan with two fundamental objectives: to achieve high and sustained economic growth and to promote social development which will be consistent with that economic development and will eliminate extreme inequalities.

Within the general framework of these objectives, special priority is attached to the elimination of the extreme poverty in which approximately 21 per cent of the country's total population lives.

2. Other important elements include:

Developing a modern mixed economy which will permit the market to operate as an instrument determining the allocation of resources;

Decentralizing the economy, a process which in the geographic sense would entail regionalization;

Reducing the country's dependence on foreign resources by improving the foreign trade situation and stimulating growth in the economy;

Guaranteeing equal opportunities for all Chileans, particularly with respect to education and access to health facilities, social security and employment.

3. Even though these basic objectives and guidelines are compatible with and complementary to each other, it has been necessary to establish priorities with respect to time, mainly because of the various economic factors which have affected the country in the last few years. The development plan therefore recognizes two distinct phases; the first, or short-term, phase entails repairing and rebuilding the base of the economic system, and the second, or long-term, phase entails creating conditions for accelerated and sustained national growth.

However, the two phases will not call for different measures but will simply entail a change in the emphasis to be placed on the same measures.

4. The aim of the short-term policy is to stabilize the economy. It should be noted that the rate of inflation was 694 per cent in 1973, 376 per cent in 1974 and 340 per cent in 1975 (when the economic recovery plan had begun to be applied). The plan to control inflation was based primarily on a considerable reduction in public spending and credit restrictions in the monetary system, since these are regarded as the main causes of inflation.

5. Under the long-term policy, the emphasis which has been placed on stability will be shifted to measures to accelerate the growth of output. The principal measures involved are aimed at ensuring the efficient allocation of productive resources, increasing savings and investment, improving human resources, increasing the country's scientific and technological capacity and utilizing appropriate foreign technology.

(a) With respect to improving the allocation of productive resources, the main objective of the economic plan has been to establish an effective price structure, for which purpose it was considered imperative to eliminate price controls, monopolistic pressures and the various types of subsidy associated with rationalization in the social sphere.

With respect to foreign trade, efforts have been directed towards eliminating the distortions which characterized that sector by means of a realistic and flexible exchange policy and a tariff policy aimed at a gradual lowering of duties. These policies will facilitate future development by promoting activities in which Chile has a relative advantage.

As to the public sector, there are plans to reduce its size and make more rational use of the resources allocated to it. In the next few years, therefore, the rate of growth of Government consumption will be approximately one third of the rate of growth of personal consumption, and public investment as a proportion of total investment will fall from 66 per cent to 47 per cent in the next six-year period (1976-1981).

(b) In connexion with the accumulation of physical capital, an efficient capital market is being developed which will encourage savings and ensure the efficient allocation of investment resources. This is based on such measures as freeing interest rates.

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Means of stimulating domestic private investment have also been devised, such as the system of accelerated depreciation, and the mechanism for selecting areas of public investment has been improved so that only those public projects which are socially and economically profitable can be pursued.

As to foreign savings, the plan includes a policy of attracting foreign investments by ensuring the requisite stability and consistency in the application of economic policies. Similarly, the need for financial assistance from abraod is recognized, since both the investments and the financial assistance will supplement domestic savings, increasing the rate of capital formation so that it will reach the level necessary for sustained and accelerated growth.

It should be emphasized that our present economic situation makes foreign savings even more desirable and necessary than usual. The country is faced with a drop in the rate of growth of the economy because of inadequate investment in the period 1970-1973, making it neeessary to restore that growth rate as quickly as possible; an additional factor here is the traditionally low rate of domestic saving in Chile, which cannot be improved through further reductions in consumption.

(c) The development plan emphasizes the improvement of human resources as another of the major factors contributing to national growth. In that connexion, it places emphasis on policies for expanding and modernizing the education and health systems and for vocational training for all workers.

(d) The fourth basic factor necessary to growth as planned is the use and dissemination of technology more suited to the country's particular conditions.

6. Accordingly, a National Plan for Scientific and Technological Development, 1976-1980, has been drawn up and various policies aimed at using labour-intensive technology in all spheres of activity where the factors of production are interchangeable have been put into effect. At the same time, specific programmes have been developed for the dissemination and extension of agricultural technology, which is of particular importance at this time when much of the land is being transferred to new owners. It is also working out policies for attracting and accepting foreign technology, which must, in the long term, be directed towards the creation and development of a national technology; in connexion with the acquisition of foreign technology, it is considered imperative to ensure a better allocation of scarce national resources, giving priority to the development of applied technology.

7. Specifically, the objectives of national scientific and technological development are as follows:

(a) To enable the national community to recognize the value of scientific activity as an essential element in cultural life and the basis of all scientific and technological development;

(b) To ensure an increased and more diverse supply of scientists and technical specialists to meet the country's needs, which is a matter of prime concern to the State;

(c) To achieve balanced increases in the number of scientific and technological research institutions and teams, ensuring that they are fully used;

(d) To ensure that, in the 1980s, the country as a whole devotes financial resources equal to not less than 1.5 per cent of its gross national product to scientific and technological activities;

(e) To serve the Government's economic and social development plans;

(f) To link the scientific and technological system with the productive goods and services sector;

(g) To involve the private sector in the work, financing and utilization of the scientific and technological system;

(h) To improve access to information through an interconnected national and international information system;

(i) To increase the country's capacity, both qualitatively and quantitatively, to make appropriate use of knowledge transferred from abroad.

8. It was noted above that the two fundamental objectives of the development strategy are to achieve high and sustained growth and to ensure social development that will be consistent with it. With respect to the latter, the Government has implemented social development policies aimed at ensuring equal opportunities for all Chileans, eradicating extreme poverty and stimulating employment. Accordingly, fiscal resources have been redirected to the financing of social programmes, a graduated tax system has been established, the minimum wage has been fixed at a reasonable level, a public housing programme has been initiated, with the aim of eliminating 170,000 unhealthful dwellings within 10 years, high priority has been given to nutrition programmes involving the distribution of enriched foods, and special employment incentives are being introduced to combat the relative decline in wages.

C. Projection of the Chilean economy to 1981

1. The development strategy described envisages the following aggregate performance of the economy in figures:

For the six-year period 1976-1981, an annual cumulative rate of growth of 6.6 per cent is projected;

Economic recovery is beginning in 1976 with a projected growth of 5.8 per cent, expected to rise in 1977 and 1978 to 8.1 and 6.8 per cent respectively. The last three years of the period will see the sustained growth of the national product at an average annual cumulative rate of 6.2 per cent.

Among the factors which will have a major impact on economic recovery and the sustained growth of the economy, the gradual increase in gross domestic investment and substantial increases in industrial and agricultural exports stand out. Thus, the projected rate of gross domestic investment in fixed capital (expressed as a percentage of gross domestic product expenditure), will rise from 11.3 per cent in 1975 to 15 per cent in 1981; at the same time, a gradual decrease in the participation of the public sector in over-all investments is envisaged, with the result that efforts to increase investments will come primarily from the private sector, national and foreign, while the State will focus its activities on the social sectors most properly within its purview.

In terms of per capita gross domestic product expenditure, an increase from $987 in 1975 to $1,289 in 1981 (expressed in 1974 dollars) is anticipated.

2. Broken down by sectors, the forecast is as follows:

Agriculture: Increased production at an annual cumulative average rate of 4.8 per cent. This rate is low owing to the stagnation which has traditionally characterized the sector, and it can be improved with the rapid integration of the reformed agricultural sector. Activities in the forestry sector offer the greatest opportunities for expansion, given Chile's ecological situation, the availability of natural resources and the growing world demand for wood.

Fisheries: An annual cumulative growth rate of 16.9 per cent is projected, made possible by policy measures to increase the use of this resource, develop deep-sea fishing and increase consumption and exports.

Mining: An annual cumulative growth of 3.6 per cent, concentrated in 1976 and 1977, is anticipated and will be attributable to exceptional increases in levels of copper production. Mining production will remain virtually constant as from 1978, since there are no major plans for expansion in the other mining subsectors.

Energy: This sector is highly to a marked degree invulnerable to short-term changes, which means that the prospects of introducing fundamental alterations before 1981 are slim; nevertheless, it is envisaged that among the alternatives to be used in the short and medium terms, hydrocarbons will be substituted for coal at the Gran Minería del Cobre and in industry.

Industry: A recovery is envisaged in the next three years and it is hoped that, beginning in 1979, industrial growth will reach a sustained annual rate of nearly 8 per cent, as a result of the improved allocation of resources in the economy and the effective use of the comparative advantages which Chile enjoys. The growth of export industries as a result of the foreign trade policy is expected to be particularly significant.

Construction: Annual cumulative growth on the order of 8.9 per cent is envisaged, principally in the housing construction sector.

D. The importance of external assistance (in the form of capital and technical assistance)

1. Under the current development plan, the contribution of foreign capital and technology is considered indispensable if high rates of growth are to be attained, since they supplement the national capital formation effort, particularly in those areas requiring substantial investments, complex technologies and large markets.

Consequently, foreign investments are accorded legal guarantees assuring them of non-discriminatory treatment vis-à-vis national investments and expressly establishing the right of foreign investors to export profits and dividends and to repatriate their capital. Moreover, significant opportunities for foreign investment have been opened up in the mining and energy sectors (for example, in the exploitation of oil resources).

2. Furthermore, the development plan includes a policy for the recovery and acquisition of domestic technological capacity. One basic objective of this policy is to attract the foreign technology which Chile requires on highly competitive terms in the world market so that such technology can be obtained on the terms most favourable for Chile. In other words, the acceptance and acquisition of foreign technology should in the long term be geared essentially to the establishment and development of Chilean technology, at least in those sectors in which Chile enjoys comparative advantages vis-à-vis the rest of the world, and a basic element of the assimilation of technology should be the training of personnel.

E. Recent progress towards attaining the objectives established by the Government

1. The inflationary process has been slowed down. During the second half of 1975 the variation in the price index was 63.3 per cent, a figure which, projected annually, represents a rate of inflation of 166.7 per cent, which is much lower than the 376 per cent registered in 1974.

This downward trend in inflation is closely related to the improvement in the financial situation of the public sector, as concerns both public enterprises and the national budget. For the first time in recent years, the national budget shows no deficit in local currency, whereas it does continue to show a foreign exchange deficit, owing to decreased income from copper sales and substantial outflows to cover interest and the amortization of the external debt.

2. The balance-of-payments situation has improved. The deficit, which as anticipated at the beginning of the year would have been impossible to finance, was gradually reduced during the year to $US 261 million, which it proved possible to finance without difficulty.

This improvement can be attributed to an extraordinary increase in non-traditional exports (which rose 178 per cent during the past two years) and a significant reduction in the volume of imported food-stuffs.

3. It should be noted that Chile has made a great effort to improve its productive structure and achieve financial equilibrium, both domestic and external. Because Chile had fewer external resources at its disposal in 1975, owing to the world crisis, it was compelled to adjust its balance of payments, at the heavy cost of a decline in the level of production, increased unemployment, and persistently high inflation. As a partial remedy for this sacrifice borne by the population as a whole, the Government has implemented various measures which are intended primarily to absorb manpower.

4. In view of the favourable impact which the economic normalization policy has had on the balance of payments, the national budget and inflation, as described above, and in view of the increased level of economic activity which has been in evidence, with some fluctuations, since the end of 1975, the Government announced late in June 1976 a set of measures relating to credit, taxation, the budget, foreign trade and investments which would make it possible to launch a new phase of activity characterized by full expansion and a rise in the level of living of the population.

Of special importance among the measures which have been implemented is the revaluation of the peso (by approximately 10 per cent as of 1 July), which has led to increased imports (greater availability of goods for all) and a lessening of inflationary pressures as a result of the fact that less money is needed for the net purchase of foreign currency and of the effect on expectations and the impact on price levels.

5. Generally speaking, during the first half of 1976 the evolution of the economy has shown significant improvement as compared with the situation in 1975, with the strengthening during this period of the conditions required to initiate stages of growth. For example, whereas the foreign trade situation was the main limiting factor facing Chile in 1975, it is currently showing a balance-of-payments surplus for 1976 estimated at $US 250 million. This improved balance-of-payments situation, together with the cancellation of external debts, has enabled Chile to launch the second phase of its foreign trade policy, which is based on periodic adjustments in the rate of exchange depending on domestic inflation, so that the real value of Chile's currency is maintained but not increased. As to the price situation, inflation has decreased during the first half of this year. Thus, the variation in the consumer price index measured over a 12-month period, which was 704.6 per cent at the end of 1974 and 422 per cent at the end of 1975, was 211.3 per cent at the end of June 1976.

Bank credit has increased considerably (by 20.9 per cent in May and 23.8 per cent in June) as a result of the banking reform announced in May 1976 and the reduction in June in the reserves maintained to cover time deposits.

Lastly, the budget showed a local currency surplus of 473.5 million pesos during the period January to June, while the foreign exchange deficit fell from 64.9 per cent during January-June 1975 to 49.8 per cent during the corresponding period in 1976.

IV. DEVELOPMENT OBJECTIVES AND UNDP ASSISTANCE

Development objectives to be attained with UNDP assistance

1. The Government wishes to use technical assistance provided by UNDP to spur development in areas of priority interest to Chile. It has already been indicated, in the description of the process whereby requirements are determined at the national level, that the main considerations forming the basis of the general criterion for determining the priority areas were as follows:

(a) Concentration of efforts;

(b) Consistency with the objectives of the national development policy described in the preceding chapter;

(c) Possibility of being dealt with through other channels (which might be more effective), such as private initiative, whether external or internal, and credit;

(d) Promotion of activities carried out with resources in which Chile possesses clear comparative advantages, labour-intensive activities and activities which have substantial redistributive effects.

2. The target areas determined on the basis of the above criteria were: human resources; natural resources; regional development and scientific and technological development. In the process of determining requirements, certain sectors and priority activities were defined within the selected areas, and the specific development targets to which the Government wishes to apply UNDP assistance may accordingly be summarized in the following table:

Area	Sector
A. Human Resources	1. Planning
	2. Social sectors
	3. Agricultural training
B. Natural Resources	1. Energy
	2. Forestry
	3. Fisheries
C. Regional Development	1. Regional planning
	2. Administrative reform and regionalization
	3. Statistics
	4. Data processing

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D. Science and Technology
1. Planning
2. Sciences
3. Technology

Each sector is analysed separately below in relation to the objectives established in Chile's development plan, the factors impeding development the Government's efforts to overcome those obstacles and the technical co-operation required to enable it to overcome them.

A. Human resources

1. Planning and development

One of the priority goals set by the Government is the integrated development of the country's full potential in human resources in order to eliminate extreme poverty and glaring inequalities, and promote the attainment of the country's growth targets by improving its human resources.

The following, which are closely interrelated, are the greatest obstacles identified in this sector: unemployment; areas of extreme poverty; low level of general and technical knowledge of much of the population; inability to absorb the school-age population; excessive orientation of education towards university studies; inadequate educational preparation for employment; and the lack of a policy guaranteeing the people full access to integrated health services.

The Government has been implementing various measures aimed chiefly at eliminating extreme poverty through programmes in such areas as nutrition, maternal and child welfare, and housing. Measures have also been taken to provide employment to those out of work. The measures taken with respect to employment include subsidies, the hiring of additional manpower, of afforestation, the allocation of public funds on a priority basis to labour-intensive activities, and the promotion of investment as a factor generating permanent employment.

At the same time, emergency measures have been taken, such as the Minimum Employment Programme, which is aimed at partially remedying existing economic conditions.

In the field of education, action has been directed mainly towards redistributing financial resources more appropriately among the various levels of education; while a greater share of resources has been allocated to this sector in the 1976 budget.

Given the broad scope of the action which this area encompasses (health, nutrition, education, training, social security, employment, advanced training, research, etc.) and the volume of programme resources which will be allocated to it, it was felt that UNDP involvement should, in the interest of concentrating efforts, be focused in the first phase on a specific project the purpose of which would be to collaborate with the Government in strengthening and improving the

existing infrastructure in the field of human resources planning, with all of the activities which such a project must entail if it is to give effect to the Education-Training-Employment formula.

This project will provide a tool for promoting greater co-ordination among the various agencies engaged in human resources planning. At the same time, it will seek to equip such agencies with better and more effective planning techniques aimed at achieving greater effectiveness in the formulation, implementation, follow-up and assessment of programmes and policies in the fields of health, education, training and employment. Lastly, it will promote greater compatibility and consistency among the various programmes and projects, and between them and the other components of the country's general development policy.

2. Social sectors

As already indicated, there exists a broad spectrum of areas closely related to human resources development, all of which demonstrate the validity of social development as an objective compatible with economic growth. The extreme poverty of 21 per cent of Chile's population, affecting in the main four rural areas of the country, constitutes an obstacle on which efforts at both the national and regional levels are being concentrated. Action must be focused on such problems as inadequate housing, lack of any kind of maternal and child care, the low level of nutrition, the inadequacy of medical care and health services in general, inadequate social security provisions, the unsatisfactory level of education, the absence of participation by women in the development process at all levels and the high level of unemployment.

The above-mentioned obstacles are already the subject of various Government proposals, as described above (see pp. 22 and 24). However, since action on these problems cannot be deferred, the Government would like the present country programme to provide direct assistance to social development through a number of specific activities from among those in the broad spectrum mentioned above. These activities, which would be linked to the project in human resources planning, would also be supported in the country programme by the social components of the projects described in other sections of this document. The following cases could be mentioned by way of example: the fisheries project, because it entails improving nutrition and artisanal fishing (see p. 38), and the projects on forestry (p. 32) and the training of agricultural producers to manage their own land (p. 29) because of the impact these will have on tens of thousands of families living in the countryside.

(a) Maternal and child health and family welfare

The programme for extending maternal and child health and family welfare services will be of particular importance. At the first stage, the policies and activities of the various national programmes concerned with family welfare were co-ordinated and harmonized. At the second stage, it will be necessary to extend this experience to the rural sector, which is the sector most affected in terms of

social development, and this process will be based on women as a natural focal point. In the rural sector, the programme will be multisectoral not only in maternal and child health, including nutrition, regulation of fertility and the like, but also in education and in the promotion of new possibilities for and greater participation by women through the improvement of the quality of life in rural areas and increased awareness of the role of the family in national development, all these actions being adapted to the regional framework which is in the process of being set up.

It is intended in this way to broaden the approach which has traditionally been taken in training human resources for family assistance activities. Accordingly, training in this field will not merely encompass such specific areas as health and education but will be multidisciplinary so that the human resources trained in future will have a broad vision of the field of social development. This is to be brought about through the interaction of the various human resources training units in the broad spectrum of institutions carrying out teaching activities which are relevant to the rural situation.

The territorial scope of the project will coincide with the PESMIB areas, with the exception of the metropolitan area; policy and operational guidance for the project will be centralized, but action will be decentralized at the regional level.

The project is being presented to various sources of international co-operation, both multilateral and bilateral, including UNDP, UNFPA having provided financing during the first stage. The external contribution needed is on the order of $US 3 million, of which the sum of approximately $US 560,000 is being requested from UNDP to be allocated to activities to benefit women in rural areas. UNDP will also be asked to assume responsibility for administering the total amount of resources obtained from the various agencies and Governments actually contributing to the implementation of the project. Thus, UNDP will perform the function of over-all supervision and co-ordination of the project.

As already indicated, the aim in the human resources area is first of all to meet the needs of planning and of the PESMIB programme, since those two activities are directly related to or will be implemented in various sectors in the social field.

At the second stage, and on the basis of the results and recommendations of the project on human resources planning and development, UNDP co-operation is envisaged in implementing specific projects aimed at the following sectors:

(b) Education

On the basis of the State's education policy, which is determined by a broad conception of education as a continuous and permanent activity geared to the interests, aptitudes and age of the student, the Government intends to carry out a project which will entail an estimated $US 450,000 in UNDP resources for the following activities: defining guidelines for educational reform; the

establishment of more suitable systems for planning, curriculum development and experimenting with new teaching methods; a study of education and its relationship to the country's economic and social development; the drawing up of a realistic programme for the reform of educational structures and content; and the establishment of new systems for planning and rational organization within the universities.

An integrated research system must be established to support the structure of the new system and facilitate the implementation of the new educational policy. Such a system would make it possible to co-ordinate and rationalize the existing research resources by assigning qualified human resources in sufficient numbers to strengthen the role of the regional education departments in the process of decentralization and regionalization (see p. 33).

In this same sector, the Government is interested in obtaining UNDP assistance for activities in the field of special education.

The inadequate structure of the country's educational system and the lack of a clearly defined and regulated programme aimed at treating and providing specialized education for minors and adolescents who, because of physical or mental defects or social problems, do not fall into the normal category has led to neglect of the handicapped, which has been reflected in high percentages of repeaters and drop-outs.

For the purpose of prevention and early diagnosis of problems affecting the young through the use of appropriate techniques, the establishment of diagnosis and guidance centres and scientific research centres is planned, as well as the training of specialized personnel capable of assuming the responsibilities that arise in connexion with special education and the establishment of a national prevention programme for early diagnosis and treatment through the inclusion in school curricula of programme units in special education.

The amount of UNDP resources needed for this project is estimated at $US 450,000.

(c) Training and employment

In Chile approximately 170,000 persons are currently employed in the hotel, restaurant and industrial catering sector. The growth of the tourist sector has increased manpower needs but the workers available to meet these needs lack the requisite qualifications. According to studies carried out by the National Tourist Service, only 4 per cent of the personnel working in hotels and restaurants possess any qualifications, and the situation is worse yet in industrial catering.

In this sector, a project for professional training in the hotel trade is planned. The objectives of this project will be to train human resources for hotels, restaurants, industrial catering operations and the like through an organic, permanent programme conducted on a regular basis and aimed at improving and expanding services in that field in accordance with the policies laid down by

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the sector. Activities will be focused on those regions in which the Government is promoting the expansion of the tourism infrastructure and network and for which specific investment plans, with financing from domestic and external sources, already exist. These activities will, therefore, be closely related to the objectives of regional development (see p. 33). The UNDP resources which are requested for this project are $US 400,000.

(d) Training and agricultural technology sector

The agricultural sector in Chile has been characterized by slow growth, which has not kept pace with population growth and is unable to satisfy the concomitant demand. The gap between supply and demand has had to be filled for some years by importing basic food-stuffs, which has aggravated the country's balance of payments deficit.

Between the years 1960 and 1974, output in this sector rose at an average rate of 1.2 per cent.

Among the chief factors which have hindered the country's agricultural development in recent decades are:

A price-control policy which has led to a serious deterioration in the terms of interchange between agriculture and the rest of the economy;

A currency-exchange policy which has created serious difficulties for the sale of Chilean products on the international market;

Acute instability in the land tenure system;

Inadequate training of workers and managers;

Insufficient transfer of technology;

Low level of farm and other investment;

Inadequate organization of the State's agricultural services;

Excessive centralization and inefficiency of the agricultural agencies in the public sector;

Lack of adequate basic statistics for an appropriate planning system;

A system of quality control, marketing and industrialization of agricultural products which is still in its infancy.

The present Government has largely succeeded in overcoming a number of the above-mentioned obstacles by applying its over-all economic policies to this sector, as well as by taking specific measures for agriculture. These include the adoption of an appropriate price policy, a realistic currency-exchange policy and

a policy under which the ownership of expropriated land is regularized and farms of less than 80 ha are not subject to expropriation. These measures, together with the improvement of technical and financial assistance, have made it possible in 1975 significantly to reduce imports of such food-stuffs as wheat, oil, sugar and rice, while at the same time increasing agricultural exports in general by 105.2 per cent over their 1974 levels.

Other measures taken by the Government as part of its economic policy which are helping to overcome the above-mentioned obstacles include the promotion of investments in general, the restructuring which the Government is carrying out of all agencies under its authority and the general policy of decentralization.

There are four specific development objectives with regard to which the Government is desirous of carrying out specific projects with UNDP assistance:

(a) As a result of the agrarian reform in progress, which will be concluding its programme of granting titles of land ownership within the next four years, the beneficiaries (persons generally at a low cultural and socio-economic level) will be faced with new realities requiring them to make rational managerial decisions which will ensure optimum use of their technical and financial resources.

To that end, and in order to consolidate the results of changes in the system of land tenure, ensure an adequate level of production in national agriculture and train needed specialists and middle-level management, a project is planned to promote the managerial and organizational development of producers operating family farms.

The plans include the training of 1,000 resident monitors, 40,000 producers at the farm level, 2,000 directors and managers of co-operatives and 500 specialists and the setting up of approximately 1,000 societies for agricultural co-operation. The amount of UNDP resources allocated to the project will be on the order of $US 1,767,250.

(b) There is at the same time an urgent nation-wide need to obtain the highest possible yield from agriculture, as only a relatively small area is under cultivation (5.5 million ha) and it is virtually impossible to increase it. This requires agricultural producers not only to make rational use of their resources but also to adopt new and better techniques to ensure increased productivity on their farms. In this connexion, the greatest problem identified in the sector relates to the dissemination and transmission of research findings to those who can utilize them; the technological experience which has been acquired so far remains, to a great extent, stored away and/or little utilized.

Through a project relating to research, dissemination and agricultural extension, the Government intends to bring about the necessary transfer of technology, particularly to small farmers and new entrepreneurs. This project will involve a UNDP contribution of approximately $US 1,723,400.

(c) The country's agricultural sector is beset by numerous technical problems

relating largely to agricultural engineering, that is, the application of engineering to agriculture in the form of irrigation systems, drainage, mechanization, the processing of agricultural products and construction. These activities are currently being carried out by persons who have only partial training in agricultural engineering or whose training is in other fields, and this situation is an obstacle to agricultural development.

In order to train specialists and strengthen the technical capabilities of specialists in this area, and to contribute to the achievement of the development objectives of the agricultural sector described above ((a) and (b)), a project with UNDP assistance (amounting to approximately $US 600,000) will be needed. The objectives of this project will include the establishment of a post-graduate programme leading to the master's degree in the Institute of Agricultural Engineering of the University of Concepción. The project will also involve extension and applied research activities in the above-mentioned areas.

(d) In the agro-industrial field, significant potential comparative advantages are to be had and these can be exploited by raising the technological level of the sector and training its personnel. One of the areas requiring the greatest attention in this respect is the meat industry, because of its extremely low level of technological advancement and the excessive waste of the meat that is produced.

Accordingly, plans have been made for a project, to which UNDP's contribution will be approximately $US 400,000, aimed at improving and standardizing the production, processing, distribution and marketing of meat and meat by-products through such activities as research, education, extension and the provision of services.

It should be stressed that the implementation of the latter two projects will be closely co-ordinated with the objectives indicated for the scientific and technological development area (see p. 36).

B. Natural resources

With regard to natural resources, it was thought best to concentrate UNDP assistance on those sectors which are regarded as priority sectors in the country's economic development process, with the exception of agriculture, which was dealt with earlier. Those sectors are: energy, forestry and fisheries.

1. Energy

This is a strategic sector in economic development terms, for without an adequate supply of energy for processing manufactured goods and transporting and selling the various goods, products and services which make up the gross domestic product, the latter cannot grow.

Although it has relatively abundant energy resources, Chile has been able to meet only part of the energy needs of its economy, and the broad outlines of the

energy policy are therefore designed to increase the supply of nationally produced energy in an efficient manner. At the same time, in the short- and medium-term we have the alternative of replacing hydrocarbons by coal in large-scale copper mining and in industry, and/or by nuclear power to supplement the output of the present interconnected network which supplies the country. Under this policy, a price structure for the various forms of energy is envisaged which will be directly related to the economic and social cost of generating that energy. The requisite adaptation of the sector's institutional structure is likewise contemplated.

In this context, Chile must study a policy for developing coal resources which will take into account the following factors conducive to their large-scale use: stability of prices of hydrocarbons; uniformity of quality; administrative efficiency and production costs in comparison with those of other producer countries. The last of these factors is influenced by the particular conditions under which coal is worked in Chile, technological backwardness, inefficient production and insufficient exploration of seemingly promising deposits in the Gulf and the Province of Arauco and the Province of Magallanes.

In its concern to develop the energy sector as a whole, the Government has set up a National Energy Commission to draw up a national energy policy. The Commission will publish its report on that subject in the next few months. The specific development objective for which UNDP assistance is desired in this sector has been chosen in accordance with the broad outlines of that national energy policy, which have already been described.

Thus, UNDP assistance is requested for two areas:

(a) The exploration of reserves in the Gulf of Arauco and the Province of Arauco (estimated to be one of the largest coal reserves in South America), in order to assess their potential and ensure that they are worked for the next 20 to 30 years. In the first of these areas, the coal reserves are of the metallurgical type required to produce coke for the iron and steel industry and must be worked with the use of rigs or ships for submarine drilling. In the other area, drilling will be on land.

While other activities relating to energy (production of crude petroleum and petroleum refining, geothermal and solar energy, generation and distribution of electricity, etc.) are capital-intensive, coal production is labour-intensive.

UNDP assistance to this project would be on the order of $US 500,000.

(b) Support of Chile's nuclear power programme by incorporating in the country's interconnected electricity network, in 1987, a nuclear power station with a generating capacity of approximately 500 MW, for which an investment of approximately $US 500 million would be required.

It is hoped that with UNDP assistance the foundations will be laid for providing the human and technical infrastructure required to implement the nuclear power programme in Chile with maximum guarantees of efficiency, capacity and safety and in accordance with international standards for the protection of human beings and the environment.

The priority aim of the project is to train specialized human resources to take charge of the implementation of the nuclear power programme by providing approximately 60 fellowships for study abroad and by organizing various courses and symposia within the country. In addition, other activities will be carried out in the field of safety and quality control, the contracting of essential services prior to the design of the power station and the gathering of information and parameters needed for safety analysis. UNDP resources for this project are estimated at $US 1,403,200.

2. Forestry

(a) Forestry is a particularly important factor in Chile's development since the country has an enormous area of land suitable for forestry, of which only 430,000 ha are so far covered by man-made forests consisting primarily of insignis pine. There are also plans to increase planting up to a rate of 150,000 ha a year in the medium-term in view of the propitious natural conditions which Chile offers and the volume of manpower absorbed by silvicultural and timber industry activities (approximately 80,000 persons), as well as the successes achieved with respect to timber industry output and exports and the impact which the forestry sector has on regional development.

(b) Reafforestation is expected to increase considerably as a result of the incentives and credit facilities provided for in recent legislation, which is now in force.

The main constraints on forestry development would be:

Incomplete institutional development;

An information network which is not adequate for carrying out the necessary planning;

Minimal development of regional planning and investment programming;

Minimal development of marketing, standardization and quality control techniques;

Low level of manpower training;

Inadequate research on some aspects of silviculture and related industries.

(c) UNDP assistance will be used specifically in activities which were not covered by earlier projects or, if they were, need to be strengthened and are vital for improving the operational efficiency and increasing the productive capacity of the forestry industry, at a stage which is clearly differentiated from and more advanced than any stage at which UNDP assistance has been received to date. Such co-operation would be requested through a forestry research, training and development project which could include the following:

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(i) To carry out an applied research programme in the various forestry activities and ensure that the results are properly transmitted to users. To that end, it is planned to set up research centres in the appropriate areas which would work in accordance with regional development strategies.

(ii) To strengthen the capacity of the forestry sector in terms of multiple uses of natural forest so that, apart from providing timber, forest areas would yield such benefits as environmental protection, erosion control, conservation of wild life and regulation of water sources.

(iii) To set up new regional training centres for forestry personnel in order to meet the growing demands of the public and private sectors where those sectors are involved in activities connected with man-made and natural forests.

(iv) To improve knowledge of this resource and set up machinery for keeping such knowledge up to date at all times so that it can be used to guide planning and expansion of forestry activities.

This project, which will cost approximately $US 1,846,500, meets the criterion of intensive manpower use since it will have implications for the 80,000 persons employed in the forestry sector. It will also have a positive effect on the productivity of the country's 20 million ha of land suitable for forestry.

3. Fisheries

This sector will be considered in Section 3 - Technology, in the part devoted to science and technology (see p. 38).

C. Regional development

The measures adopted by the Government demonstrate how much importance is attached to reforming the structures of the State. The basic aspect of these new structures is the already operative system of what could be called regionalization for development, or decentralization, not only in the form of independent planning and management units but also of geographical and public sector decentralization. In all, 12 regions and a metropolitan area have been defined, each with an individual system of government and administration.

Some of the main operational problems which will probably face the Government in the short term, in applying this entire system efficiently, will be the shortage of the highly qualified staff which such a system will require, the need to adapt the country's civil service to the regionalized system and the technical problems involved both in finding specialized staff and in carrying out specifically regional activities.

1. Regional development planning

With reference to co-operation in achieving the development aim described above, a regional development planning project of broad national scope is contemplated, which would require UNDP assistance on the order of $US 2 million.

In order to implement a national system of regional planning and to set the country's regionalization process in motion, it is planned to determine in the short term what instruments and resources will be needed to achieve those objectives and to train the necessary personnel.

The basic components of the project would be a training programme, direct technical assistance and the introduction of special regional planning techniques.

(a) The training programme would be carried out at two levels:

Dissemination of the relevant material and short seminars for participants at the local level; and

Training: courses in regional development planning for top-level civil servants (approximately 10); general regional planning courses for high-level civil servants directly involved in regional planning who need training in applying techniques and formulating policies in specific specialized areas such as project evaluation, urban planning, environmental planning and budget programming; specialized courses, within the framework of regional planning, on diverse topics of particular interest to the regions, such as the siting of industries, the development of agricultural industries and public investment management. Under this scheme it is expected that approximately 150 to 200 civil servants will be trained each year.

(b) The programme of direct technical assistance would involve the following:

Making evaluations and devising strategies for regional development both at the national level and in the various regions;

Establishing criteria for the allocation of resources at both the national and the regional level;

Solving basic problems of regional development;

Drawing up investment projects;

Introducing physical planning and planning models for simulating policies as valuable techniques and basic criteria in the regional planning process.

2. In order to give impetus to the implementation of the regional development policy, it is planned to carry out a regional planning pilot experiment for the over-all development of the Fifth Region, which is taken as a model because the diversity of its natural resources makes it highly representative of all the regions.

To make this experiment, a project will be carried out with UNDP co-operation to the value of about $US 330,000 and will cover the following activities:

Evaluation of the location and use of the region's resources;

Selection of development alternatives which are most promising for the region, providing the basic background data on the financial resources required; and

Establishment of an administrative framework in accordance with the development strategy for the region.

3. In addition to the above, the following projects connected with the regional development planning project, are of particular importance:

(a) Provision of advisory services to the National Committee for Administrative Reform (CONARA) in connexion with specific aspects of the reform process, such as: sectoral organization of the public administration; implementation and management of the budgetary system; training of civil servants; local and metropolitan administration. The UNDP contribution will be about $US 350,000.

(b) The creation of suitable conditions for producing up-to-date, relevant statistics to back up decision-making with respect to the country's regional development process, and for meeting the information needs of public and private users. The UNDP contribution will be on the order of $US 400,000.

(c) Promotion of the use of data processing and computers in all those activities where their use will make it possible to reap major benefits in terms of regional development, greater efficiency in the administration of the country's resources and accurate, succinct and relevant information which can be used to take decisions at the regional and national levels. The UNDP contribution will be about $US 300,000.

(d) Consolidation and establishment on a permanent basis of the technical administrative machinery required to link up public health laboratories and integrate them in a national plan, by organizing regional laboratories and providing them with the infrastructure in equipment and personnel needed to enable them to organize and advise local laboratories within their jurisdictions.

Such action would ensure that the achievements of the first phase of advisory assistance to the Chilean Bacteriological Institute, as the country's central laboratory, in the training of biologists and in microbiological control and diagnosis, would not result in a permanent technical centralization of resources but would extend them to the rest of the country. At the same time, its principal function of providing a standardized reference and services for the laboratories of the National Health Service on matters in which it has competence is being strengthened. UNDP assistance for a project costing about $US 400,000 is being requested for that purpose.

3. It should be pointed out that the present country programme envisages the closest possible link-up between the objectives and activities of regional development and all other efforts in other areas. At one level, it can be seen that an impetus will be given to the economic and social development of a number of specific regions by the activities carried out under certain projects which form part of this programme, for instance, coal exploration, fisheries development, support to the forestry sector and a number of projects in the science and technology sectors and in support of the agricultural sector. At a second level, the possibility and advisability of organizing exchanges and co-operation at the regional level is envisaged between the personnel of the projects mentioned above and those persons who are responsible for planning in the regions. This could be achieved by including in the proposed training courses topics connected with the projects (sectoral planning, investment projects, agro-industry, etc.) and by involving project personnel in the planning process and in the training courses. Finally, there is a third level of interrelationship, namely the decentralization of the activities of various projects, which represents a process of regionalization of the projects themselves. We might mention the following instances: regionalization of forestry research; concentration of hotel training on regions with tourism investment potential; and the decentralizing effect at the regional level of the PESMIB project, with particular emphasis on rural areas and the organization of regional laboratories to supplement the Chilean Bacteriological Institute, which is the country's central laboratory.

D. Scientific and technological development

1. Planning

As indicated in chapter III, scientific and technological development is a priority activity of the State and, as such, it needs to be planned and supported in its execution in order to ensure that the proposed objectives (see pp. 18 and 19) are fully attained.

To that end, the country's existing resources must be supplemented by international technical co-operation in order to solve the problems arising at the commencement and during the initial stage of such development.

Fundamentally, those problems are related both to the general co-ordination of the system on which the activity is based and to specific sectors that are dependent to a high degree either on the transfer of knowledge from abroad or on the appropriate methodology in order to establish new ones or utilize existing ones at the national level.

In view of the foregoing, there is a need to improve national capacity to direct, review and plan scientific and technological activities in areas defined in the National Plan for Scientific and Technological Development as priority areas, thereby avoiding duplication of effort and waste of resources and strengthening those centres best able to undertake certain activities.

Under the project entitled "Study and Improvement of Science Policy Projects", CONICYT will be substantially strengthened in order to enhance its capacity to assist in directing and co-ordinating the national science and technology system. The project will provide advice for the study, implementation, improvement and systematic evaluation of science and technology policy, and for specific projects contained in the National Plan for Scientific and Technological Development.

In addition, the science and technology system requires selective support in those priority sectors that have a greater capacity for effective use of UNDP technical co-operation. The choice will be made in accordance with the guidelines and objectives of the above-mentioned project, strengthening and uniting the first three areas described above, in which UNDP assistance will be concentrated.

2. Science

The country has a long tradition in the field of basic scientific research which it is most important to sustain, since it constitutes one of the most solid pillars of the country's heritage. The world economic crisis, and especially the country's own economic crisis, has seriously affected scientific activities in Chile. The economic measures that it was necessary to adopt in order to overcome the crisis have made it possible to check the growing deterioration in those activities. Nevertheless, it is felt that the level of activity is still inadequate, in view of its importance and the amount that the country has invested in order to establish and develop an effective science system.

(a) In view of the foregoing, a programme would be required that would strengthen post-graduate studies in the basic sciences. The programme would receive UNDP assistance on the order of $US 450,000. It would contribute to the development of a course leading to a doctorate in physics, mathematics and chemistry and would support the relevant research.

(b) In Chile there is widespread ignorance of the national fauna and flora. Owing to the lack of a tradition concerning their proper management, there is no national awareness of the prospects for economic and social progress which careful management of those renewable natural resources would afford.

Under a project (with UNDP support in the amount of about $US 300,000) carried out in co-operation with universities and other specialized institutions, an inventory of the flora and fauna of the Eighth Region will be drawn up. In addition, research will be conducted in the physiology, ecology and chemistry of those natural resources, and the degree of their destruction or pollution will be determined. The project will be of assistance in the formulation of a policy for conservation and renewal in the development and preservation of the flora and fauna, thereby helping to raise the standard of living of the inhabitants of the region, which is one of the poorest in the country. In the formulation of this project, consideration will be given to possible links with the project entitled "Forestry Research, Training and Development" (see p. 32).

In addition, this project is of special importance because, from the point of view of regional development policy, it will constitute a pilot project in this field.

3. Technology

Since the 1960s, Chile has been keenly aware of the role of science and technology and of its significance and importance for any national development efforts and for outlining action policies. In promoting technological development, Chile has been setting up a network of specialized centres for research and technological services in essential sectors.

Specifically, the country programme will support activities to promote technological development in the fisheries and industrial sectors, in addition to placing emphasis on technology as an integral part of projects already described in the fields of agricultural engineering (see p. 29), and meat technology (see p. 30).

(a) Fisheries sector

Fishing is an activity of great development potential for the national economy. It is based on renewable natural resources which, if used rationally and efficiently, constitute a permanent source of wealth. Its importance lies in its contribution to feeding the population, providing employment and improving the balance of payments.

The principal bottle-necks in the development of this sector would be:

Lack of knowledge of the biological characteristics of the resources and of their abundance or scarcity and geographical distribution;

Misuse of the resources, causing a decrease in species of high nutritional value suitable for direct consumption;

Excessively diversified production and consequent high costs;

Inadequate fleet and marketing infrastructure and support, and an inadequate marketing information system;

Rudimentary state of policy guidelines for the subsector and outdated legislation;

Inadequate institutional development;

Lack of basic statistical data and applied research at the necessary level;

Inadequate level of investment;

Low level of manpower training and productivity;

Inadequate transfer of technology.

Faced with these obstacles, it has been necessary to formulate a national policy for the sector whose basic objectives are: to promote the exploitation of potential resources, increase domestic consumption of fish products, stimulate exports and create a significant source of employment.

Concurrently, a high-level national agency will be set up with responsibility for over-all guidance, co-ordination and regulation of the sector. At the same time, fishing legislation will be modernized in order to promote the harmonious development of this activity and ensure conservation of the species and of the marine environment.

The principal elements of economic policy in the fisheries sector are the following:

Promoting co-ordinated scientific, technological and economic research in connexion with fishery resources in order to assess them and determine the appropriate management policies and the optimum means and methods of production with a view to using the resources efficiently and ensuring their conservation;

Encouraging private enterprise;

Improving the working conditions and productivity of those engaged in the artisanal fishery sector;

Promoting the establishment of coastal centres which will rationalize fishing and fish processing;

Creating incentives for the investment in the sector of both national and foreign capital.

In accordance with the objectives and the policies established within the sector, it has been proposed to channel UNDP technical assistance (estimated at $US 1.5 million) into a multifaceted fisheries development project whose principal activities could be the following:

(i) Organization and rationalization of the national fisheries sector. UNDP assistance would be needed in order to speed restructuring of the national fisheries sector, at present fragmented among various institutions accountable to different ministries, in a manner consistent with the regionalization of the country and with national efforts to rationalize the State administrative structure. In that way, an efficient public fisheries sector would be developed which would provide an effective stimulus for private fishing on a basis that would serve the nation's highest interests.

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(ii) Development of marine sciences. This activity would be concerned basically with enhancing the knowledge of fishery resources and the factors which influence them. It would involve ecological studies in areas of upwelling and biological studies under natural and laboratory conditions aimed at preventing the extinction of certain species, detecting and assessing new fishery resources, and acquiring an adequate knowledge of traditional fishery resources with emphasis on economically important resources. Consideration should also be given to environmental factors that influence fishery resources. In that way, a sounder scientific basis would be established for the development of the sector.

(iii) Handling, processing and marketing of fish products. In keeping with the regulations governing on-board handling of the catch, processing and marketing and with the national fisheries policy, these activities would cover:

Inspection of fish caught and quality control of processed products;

Technical advice to the industrial sector in respect of the on-board handling, refrigeration and storage of the catch and unloading of the catch for human consumption, marketing and processing;

Information on Marketing (national and international);

Training in the preparation and evaluation of fishery projects; and

Training of manpower in the fishery industry and the artisanal fishery sector in particular.

(iv) Introduction of salmon into southern waters. Since the southern waters offer conditions which in comparison with other countries, are exceptionally favourable for the introduction of salmon, it is proposed to lay the foundation for developing a new fishery resource of great economic potential.

The above-mentioned activities are expected to have the direct result of raising the level of living of the families of the 30,000 persons employed in this sector, which is labour-intensive, and improving the quality of the diet of the entire population, as the result of increased consumption of animal protein. In addition, in so far as this project will stimulate the development of fishery resources throughout the country, it will be conducive to the attainment of the national objective of regionalizing economic development (see p. 33).

(b) Industrial technology sector

The main objective identified in this sector is the need to establish a complete system for the promotion and technical support of industry and other economic sectors. It is felt that the three basic elements constituting such a system are those relating to quality control, standardization and industrial property.

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(i) Quality control, currently being conducted by the Study Centre for Quality Measurement and Control, will be extended in response to State economic and regional development plans and to the need to establish new industries and expand existing installations and plants. Those activities, which would have UNDP co-operation (an estimated addition of $US 170,000 to the current budget) would cover the following areas: inspection of industrial assembly at the regional level; detection and study of corrosion; and sampling, analysis and physical testing of refractory materials. They would also include the inspection, calibration and certification of high-capacity weighing machines, which are used principally for foreign trade, since the country's exports exceed 1 million tons per year.

(ii) With regard to standardization, in view of the national policy of encouraging improvement of industrialized products and supporting traditional and non-traditional exports, there is a need to strengthen the national system of technical standards, certificates of quality and brands, in keeping with the standards laid down for all sectors, and a need to promote the application of such standards. UNDP will co-operate in an effort to meet that need through a project amounting to about $US 250,000, which will include the organization and development of a national system of legal and industrial methodology and will improve the compilation, classification and dissemination of all information relating to standardization, quality control and certification.

(iii) Technical innovations - essential for the country's industrial development and the problems relating to the transfer of technology reveal the need to examine the various aspects of the question of industrial property, in order to provide entrepreneurs and investors with the necessary support in that area and to safeguard their rights.

Since industrial property has not yet been the subject of any national policy, a project (costing approximately $US 70,000) will assist a study of the various aspects of the question, including the possibility of establishing a patent office at the national level.

4. Scientific and technological exchange

A fact that has been proved and accepted by both Governments and UNDP within the context of the new dimensions embodied in United Nations General Assembly resolution 3405 (XXX) is that part of the transfer and exchange of technology is carried out through specialized international meetings. It has been found that attendance at such meetings by highly qualified national officials contributes significantly to these exchanges and to the development of the country concerned.

In that connexion, the experience of the first country programme - which provides for several fellowships of that kind either as part of the training component of various projects or through small specific projects - has shown that while such programmes are effective in themselves, their effectiveness, could be enhanced if their formulation and approval were made more flexible.

In the light of the above, it has been decided to establish a special fund to finance the participation of highly qualified national officials in meetings, congresses, seminars and symposia at the regional or world level which the Government might consider relevant for any institution or for the country, and for which the national agencies lack funds. It is hoped that this fund - for which $US 100,000 will be earmarked under the second country programme to finance fellowships such as those mentioned - will help to supplement both the objectives of the National Plan for Scientific and Technological Development and some of the objectives formulated in the other areas in which UNDP technical assistance has been requested.

5. Since lack of funds has prevented the inclusion in this programme of all the priority projects which the Government would like to carry out, it should be noted that, when the programme is reviewed, the necessary decisions will be taken to include new projects when it is deemed appropriate, as and when resources are available. That approach is consistent with the principle of continuous programming laid down in the guidelines for the preparation of country programmes with UNDP assistance.

V. RELATIONS WITH MULTINATIONAL ACTIVITIES

In the past there has in general been no direct relationship between UNDP regional projects and activities under country programmes; indeed, in most cases the purposes of these two aspects of technical co-operation do not coincide because the approach on which they are based is different. Nevertheless, it is felt that in the case of the second country programme for Chile it would be possible and desirable to co-ordinate and supplement its activities with those of the regional programme at the level of execution.

It may be noted that studies have already been made in Chile to see how far work undertaken by various United Nations bodies in the social field at the national and regional levels is complementary (see annex IV). This effort must be intensified in so far as it relates to specific actions (sharing information, providing services, utilizing human resources, etc.) and it should be broadened to cover other areas which are important for the attainment of national development objectives.

The following paragraphs show possible relationships between certain major regional projects, most of which are based in Santiago, and the projects intended for inclusion in this country programme in one or another of the four priority areas into which it has been divided.

A. Human resources

The Regional Employment Programme for Latin America (PREALC), RLA/75/081, in addition to advising the National Employment Service, will co-operate in preparing and assisting various activities, to be identified later, under the project for the planning and development of human resources (see p. 24). The project for the Inter-American Vocational Training Research and Documentation Centre (CINTERFOR), RLA/75/059, could also play an important part in this connexion.

B. Natural resources

The project for Forest Industries Planning RLA/75/048, will co-operate with the National Forestry Corporation (CONAF) on matters connected with the forestry research, training and development project (see p. 32).

The Latin-American Programme for Co-operation in Energy, RLA/75/022, could assist the project for the exploration of carboniferous deposits in the Gulf and Province of Arauco (see p. 31) and the nuclear power programme (see p. 31).

C. Regional development

Regional development will basically be promoted by two regional projects: the Latin-American Institute for Economic and Social Planning (ILPES), RLA/74/234, for all matters concerning the planning of regional development, and the Latin-American Centre for Development Administration, RLA/75/038, which will assist the administrative reform project (see p. 34).

D. Science and technology

The project for Development of Science and Technology in Latin America, RLA/74/008, has been assisting the National Commission for Scientific and Technological Research (CONICYT) in the study and elaboration of scientific policy, activities which will be carried on under the second country programme.

The Programme for Centres of Applied Research in Arid and Semi-arid Zones, RLA/74/018, and the Post-Graduate Training Programme in Biological Sciences in the Andean Region, RLA/75/047, will greatly strengthen the country's scientific resources. Both projects are also related to the human resources area.

Project RLA/75/048, Forest Industries Planning, will co-operate with CONAF in matters concerning the forestry research, training and development project.

Project RLA/76/004, Information Services for the Marketing of Fishery Products, and the project for a Regional Maritime Adviser, RLA/72/069, will be an important element in the fisheries development project (see p. 39).

ANNEX I

FINANCIAL SUMMARY

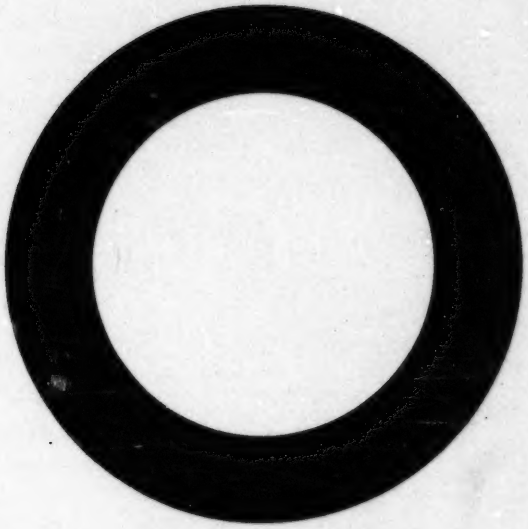
I. Resources available for programming

		$US
1.	Available resources:	
	a. IPF resources	20 000 000
	b. Other (IPF resources available 1972-1976)	913 000
2.	Programming reserve	1 500 000
	Total resources available for programming	22 413 000

II. Application of resources

			$US
1.	Programmed resources (all sectors)		
	a. Ongoing projects	3 754 200	
	b. New projects in country programme	17 170 350	
	Total		20 924 550
2.	Contingency provision*		1 488 450
	Total programmed resources		22 413 000

* See Guidelines for Country Programme, section 3B.



ANNEX II

ALLOCATION OF FUNDS UNDER THE UNDP/CHILE TECHNICAL CO-OPERATION COUNTRY PROGRAMME, 1977-1981

(by area, sector and principal projects)

AREA	SECTOR	ESTIMATED ALLOCATION $US	PROJECT	ORDER OF MAGNITUDE $US
A. Human resources	1. Planning	400 000	1a. Planning of human resources	400 000
	2. Social sectors	1 810 000	2a. Further development of the programme for extension of MCH and family welfare services	560 000
			2b. Improvement of education	450 000
			2c. Special educational programmes for minors with learning problems	400 000
			2d. Hotel training programmes	400 000
	3. Agricultural training	4 490 650	3a. Managerial and organizational development	1 767 250
			3b. Agricultural research, promotion and development	1 723 400
			3c. Agricultural Engineering Institute	600 000
			3d. Meat Technology Institute	400 000

ANNEX II (continued)

AREA	SECTOR	ESTIMATED ALLOCATION $US	PROJECT	ORDER OF MAGNITUDE $US
A. Human resources (continued)	SUBTOTAL	6 700 650		
	Ongoing projects	389 800		
	TOTAL AREA A	7 090 450		
B. Natural resources	1. Energy	1 903 200	1a. Prospecting of carboniferous deposits in the Gulf and Province of Arauco	500 000
			1b. Nuclear power programme	1 403 200
	2. Forestry	1 846 500	2a. Forestry research, training and development	1 846 500
	SUBTOTAL	3 749 700		
	Ongoing projects	2 597 700		
	TOTAL AREA B	6 347 400		
C. Regional development	1. Regional planning	2 330 000	1a. Integrated regional development programme	2 000 000
			1b. Aconcagua Basin development	330 000

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AREA	SECTOR	ESTIMATED ALLOCATION $US	PROJECT	ORDER OF MAGNITUDE $US
C. Regional development (continued)	2. Administrative reform and regionalization	650 000	2a. Administrative reform	350 000
			2b. Restructuring of the Bacteriological Institute on a regional basis	300 000
	3. Statistics	400 000	3a. Strengthening of the national system of statistics	400 000
	4. Data processing	300 000	4a. Development and application of data processing	300 000
	SUBTOTAL	3 680 000		
	Ongoing projects	553 300		
	TOTAL AREA C	4 233 300		
D. Science and technology	1. Planning	200 000	1a. Study and development of scientific projects and policies	200 000

ANNEX II (continued)

AREA	SECTOR	ESTIMATED ALLOCATION $US	PROJECT	ORDER OF MAGNITUDE $US
D. Science and technology (continued)	2. Science	750 000	2a. Strengthening of programme of post-graduate studies in exact sciences	450 000
			2b. Study of Chilean Flora and Fauna (eighth region)	300 000
	3. Technology	1 990 000	3a. Fisheries development	1 500 000
			3b. Enlargement of Centre for Studies, Measurement and Control (CESMEC)	170 000
			3c. Development of Standardization Institute	250 000
			3d. Development of an Industrial Property System	70 000
	4. Support services	100 000	4a. Assistance for scientific and technological exchange	100 000
	SUBTOTAL	3 040 000		
	Ongoing projects	213 400		
	TOTAL AREA D	3 253 400		

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TOTAL ALL AREAS

	$US
i. Ongoing projects	3 754 200
ii. New projects	17 170 350
Total	20 924 550
RESERVE FOR CONTINGENCIES	1 488 450
TOTAL FUNDS	22 413 000

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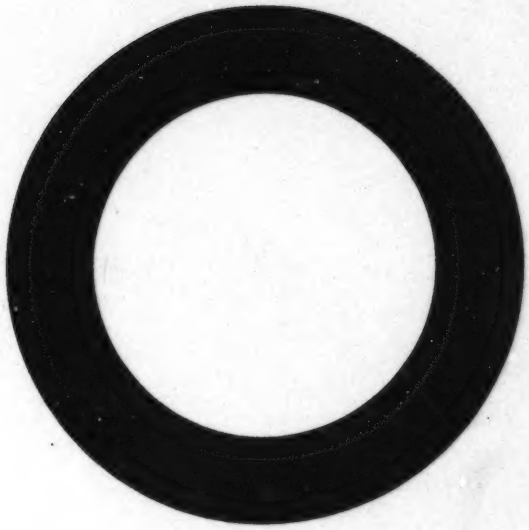

ANNEX III

ONGOING PROJECTS TO BE CONTINUED IN THE 1977-1981 PERIOD

Number/title	Agency international/ Government	Completion date	UNDP contribution (thousands $US)	Objectives
AREA: Human Resources				
74/019 Training School for Hotel Management	ILO/INACAP	6/77	22.0	To increase activities for the training of personnel in the hotel trade, preparation of teaching materials, training of instructors and training of human resources for the hotel trade in order to meet the growing need for such training throughout the country.
71/546 Agrarian Reform and Rural Development	FAO/ICIRA	4/77	36.5	To complete plans for the training of persons in rural areas, including activities at new training centres, activities at centres for technical assistance to management, preparation of training documents, production of audio-visual materials; to give such plans an orientation in keeping with the new status of rural inhabitants as private land-owners.

ANNEX III (continued)

Number/title	Agency international/ Government	Completion date	UNDP contribution (thousands $US)	Objectives
73/003 National Centre for Telecommunications Training	ITU/CENET	12/77	75.4	To enable activities to be concluded in the field of training of personnel for public and private service enterprises in the telecommunications sector, with special emphasis on remote switching.
69/530 Development of Civil Aviation Services and Facilities	ICAO/General Directorate of Civil Aviation	10/77	255.9	To provide guidance for activities in the areas of planning, operations and administration in connexion with the new evaluation of the General Directorate of Civil Aviation in order to keep up with increased aviation activities and the technological development of civil aviation.
		AREA TOTAL	389.8	
AREA: Natural Resources				
74/014 Technical Assistance to Milk Technology Institute	FAO/Universidad Austral	12/77	432.0	To provide additional technical personnel and the infrastructure needed to maintain advisory and other services to the dairy industry and State agencies relating to such aspects as milk supply and industrialization of fluid, fermented and dehydrated milk products.

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Number/title	Agency international/ Government	Completion date	UNDP contribution (thousands $US)	Objectives
71/549 Irrigation and Conservation of the Bio-Bio River Basin	FAO/SAG-DICOREN	12/77	258.0	To complete a survey of renewable natural resources and proposals for managing, protecting and increasing such resources; to complete studies and tests in the field of irrigation and dry-farming as well as economic and financial studies for pre-investment projects with a view to laying the groundwork for the agricultural development of the Bio-Bio Basin.
73/012 Mineral and Metallurgical Research Centre	UNIDO/CIMM	12/78	950.0	In connexion with the plans for expanding mining activities, to increase substantially the number of specific studies on technical problems of copper-mining enterprises.
75/006 Launching of Operations of the Soil Mechanics Laboratory in the Institute for Geological Research	OTC/IIG	4/78	56.7	To provide for the training of the IIG personnel necessary for making the soil mechanics laboratory donated by the United Kingdom Government fully operative. The laboratory will make it possible to obtain the fullest data for the planning, design and construction of large-scale civil engineering works.

ANNEX III (continued)

Number/title	Agency international/ Government	Completion date	UNDP contribution (thousands $US)	Objectives
74/005 Uranium Prospecting	IAEA/CChEN	6/79	599.3	To carry out prospecting programmes in five areas in the country, laboratory analyses and evaluation of findings.
69/535 Water Resources Development in the Norte Grande	OTC/General Directorate of Water. Chuquicamata Corto	12/77	301.7	To include in the search for water resources other areas of investigation related to water use in Chuquicamata; to conclude well-drilling and final pumping tests; to conduct a pre-feasibility study for infrastructure works required for the use of newly discovered resources.
		AREA TOTAL	2 597.7	
AREA: Regional Development				
71/550 Expansion and Improvement of Bacteriological Institute	WHO/Bacteriological Institute	12/78	490.3	To bring activities into line with the Government's new health policy by producing gamma globulin on an experimental basis and perfecting the liquid BCG vaccine.
74/025 Administrative Reform	OTC/CONARA	3/78	60.0	To ensure the continuity of advisory services and the training of counterparts in CONARA and the Directorate of the Budget in their programmes for rationalizing the career civil service.

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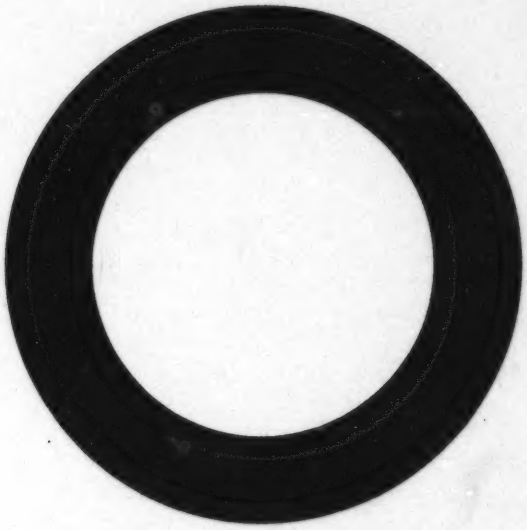
Number/title	Agency international/ Government	Completion date	UNDP contribution (thousands $US)	Objectives
75/008 Assistance to Development Banks	IBRD/Development Bank Co-ordinating Committee	1/77	3.0	To continue to provide advice to the Government regarding the establishment and normal functioning of development banks and the functions of the Development Bank Co-ordinating Committee
		AREA TOTAL	553.3	
AREA: Science and Technology				
71/545 Technological Applications of Nuclear Energy	IAEA/CChEN	6/77	153.4	To complete ongoing activities and train national personnel for the future establishment and operation of a nuclear energy plant.
73/005 Centre for Studies, Measurement and Quality Control	UNIDO/CORFO	12/77	60.0	To continue advisory services in a number of specific areas related to measurement and quality control.
		AREA TOTAL	213.4	
		TOTAL	3 754.2	



ANNEX IV

TABLE OF ACTIVITIES OF UNITED NATIONS AGENCIES IN VARIOUS SOCIAL AREAS

ACTIVITIES/ AREAS	I. RESEARCH	II. TRAINING	III. INFORMATION	IV. OPERATIONAL
POPULATION DYNAMICS	1. FLACSO-CELADE (R): International Intra-regional Migrations in the Southern Tip of Latin America	1. CELADE (R): Course in Basic Demographic Analysis	1. CELADE (R): "IMILA", Research on International Migration in Latin America	1. OTC/CELADE: Population Studies for Regional Planning in Chile
	2. FLACSO (R): Reproductive Behaviour and Structural Heterogeneity	2. CELADE (R): Courses in Advanced Demographic Analysis	2. CELADE/ECLA (R): Past and Future Trends in Population Change in Latin America	2. ECLA (R): Regional Co-operation Project in Population and Social Statistics
	3. PISPAL/CIDU-IPU: Migrations to Metropolitan Areas in Latin America	3. CELADE (R): Master's Degree Programme in Economics with Major in Demography	3. CELADE (R): Permanent Register of Population Measures and Policies in Latin America	3. CELADE (R): First Inter-Governmental Technical Meeting on Population Policies
	4. CELADE (R): Demographic Methods of Estimating Fertility and Mortality	4. CELADE (R): Training Programme for Research Fellows	4. ECLA (R): Household Survey	

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ANNEX IV (continued)

ACTIVITIES/ AREAS	I. RESEARCH	II. TRAINING	III. INFORMATION	IV. OPERATIONAL
	5. CELADE: Historical Demography-Demographic Research on the 17th, 18th and 19th centuries and the 20th century to 1930	5. CELADE (R): Course in Electronic Data Processing Applied to Population Questions	5. CELADE (R): Communications and Dissemination	
	6. CELADE (R): Industrial Employment and Internal Migration	6. CELADE (R): Seminar on Methods of Evaluating the Effects on Population of Family-planning Programmes	6. CELADE (R): Data and information	
	7. CELADE (R): Development Strategies and Population Policies	7. CELADE: Co-operation with Chilean University Programmes (a) University of Chile: Master's Degree Programme in Human Nutrition (b) Catholic University: Master's Degree Programme, in Community Health	7. CELADE (R): Computing	
	8. CELADE (R): Demographic Implications of the Regional Integration Process			

ANNEX IV (continued)

ACTIVITIES/ AREAS	I. RESEARCH	II. TRAINING	III. INFORMATION	IV. OPERATIONAL
HEALTH AND NUTRITION		8. PAHO: Clinical and Social Paediatrics Courses		4. PAHO: Health Services
		9. PAHO (R): Health statistics		5. PAHO (R): Health Planning
		10. PAHO: Education in Nursing		6. UNICEF (R): Inter-agency Project on the Promotion of National Food and Nutrition Policies
		11. PAHO: "PESMIB"		7. UNICEF: "PESMIB"
		12. PAHO (R): Medical Education		8. UNDP/WHO: Expansion and improvement of Bacteriological Institute
				9. UN/OTC: "PESMIB", Unit for Research and Evaluation

ANNEX IV (continued)

ACTIVITIES/ AREAS	I. RESEARCH	II. TRAINING	III. INFORMATION	IV. OPERATIONAL
EMPLOYMENT, POVERTY, INCOME DISTRIBUTION	9. PREALC (R): Employment Situation, Prospects and Policies in Latin America 10. ILPES: Rural Poverty in Chile	13. PREALC (R): Courses in Techniques for Measuring Employment	8. PREALC (R): Education and Employment 9. ECLA/IBRD (R): Measurement and Analysis of Income Distribution in Latin America 10. PREALC (R): Stratification and Occupational Mobility	10. PREALC: Planning in Human Resources Training 11. PREALC: Analysis of Commercial Enterprises Established in Chile
FAMILY	11. PREALC (R): Women and Employment in Latin America 12. CELADE (R): Participation of Married Women in the Urban Labour Market			12. UNICEF: Integrated Development of Minors
EDUCATION				13. FAO: Design of Family Education Units for Secondary Education 14. UNESCO (R): Regional Programme in Population Education

ACTIVITIES/ AREAS	I. RESEARCH	II. TRAINING	III. INFORMATION	IV. OPERATIONAL
RURAL DEVELOPMENT	13. PISPAL (R): Relationships between Agricultural Potential, Agrarian Structure, Regional Development and Migrations	14. UNESCO: Middle-level Agricultural Schools for the Training of Agricultural Technicians 15. FAO: ICIRA		15. UNICEF: Integrated Programme for the Socio-Rural Development of Los Lagos
SOCIO-ECONOMIC DEVELOPMENT, REGIONAL DEVELOPMENT AND PLANNING	14. ILPES: The State and Planning 15. ILPES: Urban Planning and its Relationship to National Economic Planning in Chile	16. ILPES/ECLA (R): Course in Development Planning	11. ECLA (R): Data Bank 12. ECLA (R): Social Indicators	16. UN/OTC: Social Planning

(R) = Regional project